

FY05 as of July 2004

Fort Lewis

Installation Action Plan

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Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multi-year Installation Restoration Program for an installation. The plan will identify environmental cleanup requirements at each site or area of concern, and propose a comprehensive, installation-wide approach, with associated costs and schedules, to conduct investigations and necessary remedial actions.

The IRP is specifically focused at contamination resulting from past activities, and is funded by the centrally-managed Environmental Restoration, Army (ER,A) budget account. Cleanup activities directed at contamination primarily resulting from current operations are separately funded and managed, and, although mentioned where relevant, will not generally be discussed in detail in an IAP.

In an effort to coordinate planning information between the IRP manager, major army commands (MACOMs), installations, executing agencies, regulatory agencies, and the public, an IAP has been completed for Fort Lewis. The IAP is used to track requirements, schedules and budgets for all major Army installation restoration programs.

All site specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change. Under current project funding, all remedies will be in place at Fort Lewis by the end of 2009. Under current project funding, all remedies will be in place at YTC by the end of 2006.

The following agencies contributed to the formulation and completion of this Installation Action Plan:

Engineering & Environment, Inc.

Fort Lewis

PNNL

US Army Environmental Center

US EPA, Region 10

FY05 as of July 2004

Fort Lewis
Washington
Installation Action Plan

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Acronyms & Abbreviations

AEDB-R	Army Environmental Database - Restoration (formerly DSERTS)
AFB	Air Force Base
ALGT	American Lake Garden Tract
AOC	Area of Concern
ASP	Ammunition Storage Point
AST	Aboveground Storage Tank
bgs	below ground surface
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CIH	Certified Industrial Hygienist
CY	Cubic Yards
DA	Department of the Army
DCE	cis 1,2-dichloroethylene
DD	Decision Document
DERA	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program (now ER,A)
DOE	Department of the Energy
DOI	Department of the Interior
DOD	Department of Defense
DOL	Department of Logistics
DOT	Department of Transportation
DPM	Defense Priority Model
DQO	Data Quality Objectives
DRMO	Defense Reutilization and Marketing Office
DSERTS	Defense Site Environmental Restoration Tracking System (now called AEDB-R)
EECA	Engineer Evaluation/Cost Analysis
EGDY	East Gate Disposal Yard (Landfill 2)
EOD	Explosive Ordnance Division
EPA	Environmental Protection Agency
ER,A	Environmental Restoration, Army (formerly called DERA)
ERDC	Engineer Research and Development Center
ERSH	Electrical Resistivity Soil Heating
ESD	Explanation of Significant Difference
FFA	Federal Facility Agreement
FORSCOM	U.S. Army Forces Command
FS	Feasibility Study
FTLE	Fort Lewis (AEDB-R code)
FTP	Fire Training Pit
FY	Fiscal Year
gpm	gallon per minute
GSA	General Services Administration
GWM	Groundwater Monitoring
HRS	Hazard Ranking Score
IAP	Installation Action Plan
II	Initial Investigation (WA state version of a SI)
IRA	Interim Remedial Action
IRP	Installation Restoration Program
ISRM	In Situ Redox Manipulation
IWWTP	Industrial Waste Water Treatment Plant
kg	kilogram

Acronyms & Abbreviations

LSI	Limited Site Investigation
LTM	Long-Term Monitoring
LTO	Long-Term Operation
MACOM	Major Command
MAMC	Madigan Army Medical Center
MATES	Mobilization and Training Equipment Site
MCA	Military Construction, Army
MCL	Maximum Contaminant Level
mg	milligram
mgd	million gallons per day
MMRP	Military Munition Rule Program
MNA	Monitored Natural Attenuation
MOGAS	Motor Gasoline
MROD	Mount Rainier Ordnance Depot
MTCA	Model Toxics Control Act
MW	Monitoring Well
MWR	Morale, Welfare and Recreation
NAPL	Non-Aqueous Phase Liquid
NE	Not Evaluated
NFA	No Further Action
NFRAP	No Further Remedial Action Planned
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List
OB/OD	Open Burning/Open Detonation
OMA	Operation and Maintenance, Army
OMS	Organizational and Maintenance Shop
P&M	Pittsburg and Midway Coal Mining Company
P&T	Pump and Treat
PA	Preliminary Assessment
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PCE	Perchloroethylene or tetrachloroethylene
PCP	Pentachloro-phenol
PLP	Potentially Liable Party
PNNL	Pacific Northwest National Laboratory
POL	Petroleum, Oil, Lubricants
ppb	Parts Per Billion
ppm	Parts Per Million
PW	Public Works
PY	Prior Year
RA	Remedial Action
RA(C)	Remedial Action - Construction
RA(O)	Remedial Action - Operation
RAB	Restoration Advisory Board
RABBIT	Reductive Anaerobic Biological In Situ Treatment Technology
RAP	Remedial Action Plan
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
REM	Removal

Acronyms & Abbreviations

RFA	RCRA Facility Agreement
RI	Remedial Investigation
RIP	Remedy in Place
RFI	RCRA Facility Investigation
ROD	Record of Decision
RPO	Radiation Protection Officer
RRSE	Relative Risk Site Evaluation
S&A	Supervision and Administration
S&R	Supervision and Remediation
SDWA	Safe Drinking Water Act
SI	Site Inspection
SLA	Sea Level Aquifer
SRC	solvent refined coal
SRCPP	Solvent Refined Coal Pilot Plant
SVOC	Semi-Volatile Organic Compounds
SWMU	Solid Waste Management Unit
TCE	Trichloroethylene
TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total Petroleum Hydrocarbons
TRC	Technical Review Committee
TRS	Thermal Remediation Services
TVR	Tracked Vehicle Repair
URS	One of the Independent contractors
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine
USAEC	United States Army Environmental Center
USATHMA	United States Army Toxic and Hazardous Material Agency (replaced by AEC)
UST	Underground Storage Tank
UXO	Unexploded Ordnance
VOC	Volatile Organic Compounds
WA	Washington
WAC	Washington Administrative Code
WDOT	Washington Department of Transportation
YFCR	Yakima Training Center (AEDB-R code)
YTC	Yakima Training Center

STATUS:	1 NPL site (HRS Score of 35.48) has been identified at Fort Lewis		
TOTAL # OF AEDB-R SITES:	51 sites		
	13 Active ER,A Eligible Sites		
	20 Response Complete ER,A Eligible Sites		
	18 Response Complete Non-ER,A Eligible Sites		
MMRP SITES:	14		
BRAC SITES:	0		
DIFFERENT SITE TYPES:	<div> <div>1 Fire/Crash Training Area</div> <div>1 Contaminated Groundwater</div> <div>2 Firing Ranges</div> <div>11 Landfills</div> <div>1 Surface Runoff</div> <div>1 Small Arms Range</div> <div>2 Underground Tank Farms</div> <div>2 Radioactive Waste Areas</div> <div>1 Sewage Treatment Plant</div> <div>1 Other</div> </div> <div> <div>8 Contaminated Buildings</div> <div>1 Contaminated Sediments</div> <div>1 Incinerator</div> <div>2 POL Lines</div> <div>5 Storage Areas</div> <div>4 Spill Site Areas</div> <div>2 Underground Storage Tanks</div> <div>1 Waste Treatment Plant</div> <div>1 Explosive Ordnance Disposal Areas</div> <div>2 Unexploded Munition/Ordnance</div> </div>		
CONTAMINANTS OF CONCERN:	Solvents, POL, PCBs, Pesticides, Heavy Metals, Explosives		
MEDIA OF CONCERN:	Soil, Groundwater, Surface Water, Sediments		
COMPLETED REM/IRA/RA:	- RA: FTLE-16, cap - REM: FTLE-31, contaminated soil - RA: FTLE-32, remove contaminated soil & cap <i>See RA/IRA/REM section for complete list</i>		
CURRENT IRP PHASES:	RI/FS at 2 sites RA at 2 sites	IRA at 1 site LTM at 3 sites	RD at 2 sites
PROJECTED IRP PHASES:	RI/FS at 5 sites RA at 5 sites	IRA at 1 site RA(O) at 2 sites	RD at 5 sites LTM at 6 sites
IDENTIFIED POSSIBLE REM/IRA/RA:	IRA at FTLE-33 RA at FTLE-33, 51, 62, 69, 73, 74		
DURATION:	YEAR OF IRP INCEPTION: 1980 YEAR OF IRP COMPLETION EXCLUDING LTM: 2009 YEAR OF IRP COMPLETION INCLUDING LTM: 2035		

Installation Information

SITE DESCRIPTION:

Fort Lewis is located in western Washington, along the southeastern shores of Puget Sound, approximately five miles southwest of Tacoma and seven miles northeast of Olympia. Reservation boundaries encompass an area of 86,176 acres within Pierce County (67,650 acres) and Thurston County (18,526 acres). The area is configured with its longest axis extending generally northeast to southwest and is divided by Interstate 5 (I-5), which forms the main transportation corridor in the Puget Sound region. The working population is approximately 32,100 personnel including military, civilian, and contractor employees. Fort Lewis is bordered on the north by McChord Air Force Base (AFB) (population 5,000), and suburban and commercial development; on the east and south by rural areas, forested land, and several small communities; and on the west by Puget Sound, the Nisqually Indian Reservation, and the rural areas that surround Olympia. Neighboring civilian communities include: the Town of Steilacoom (population 5,800) and the incorporated area of Lakewood (population 65,000) adjacent to the north boundary, the City of Tacoma (population 177,500) northeast of Fort Lewis, the unincorporated areas of Spanaway/Parkland (population 81,800) to the east, and the City of Olympia and adjoining cities of Tumwater and Lacey (total population of 68,300) to the southwest.

IRP EXECUTING AGENCIES:

Investigation Phase and Remedial: Headquarters, I Corps and Fort Lewis, Public Works

Action Phase Executing Agency: Environmental and Natural Resources Division

REGULATORY PARTICIPATION:

Federal: U.S. Environmental Protection Agency, Region 10, Federal Facilities Branch

State: Washington State Department of Ecology (Ecology), Hazardous Waste and Toxic Reduction Program, Southwest Regional Office

REGULATORY STATUS:

- 1 National Priorities List (NPL) site
- 1 Site deleted from the NPL, May 1995
- Federal Facility Agreement (FFA) signed January 29, 1990
- Agreed Order - completed on February 23, 2001

MAJOR CHANGES TO IAP FROM PREVIOUS YEAR:

None

Installation Description

CURRENT ACTIVITY

Fort Lewis is an active military training facility for both weapons qualification and field training. It is home to I Corps Headquarters. The mission of Fort Lewis is the maintenance of combat readiness of assigned units. Fort Lewis training facilities are also used by U.S. Army Reserve Units, Reserve Officer Training Corps, and the Washington Army National Guard. In addition, Fort Lewis is used periodically by Army Active and Reserve Units from out-of-state, as well as, other U.S. Armed Services and units from allied nations such as Canada and Great Britain.

HISTORIC ACTIVITY

In January 1917, the citizens of Pierce County donated 77,318 acres of land to the Federal Government for the establishment of a permanent military base, which was named Camp Lewis. By September of 1917, the cantonment area, with facilities for 60,000 personnel, was completed. Camp Lewis was the largest military post in the U.S. at that time. Following World War I, activities at Camp Lewis slowed. However, Camp Lewis became headquarters for the 3rd Infantry Division in 1921 and remained so until 1942. In 1927, Camp Lewis was redesignated Fort Lewis and became a permanent installation.

Conditions immediately preceding World War II caused an escalation of training and construction at Fort Lewis. North Fort Lewis was constructed in 1940; in 1941, Gray Army Airfield and the Mount Rainier Ordnance Depot (MROD) were built; in 1943, Madigan Army Medical Center (MAMC) was constructed. Fort Lewis thus became the focal point for troop induction, training, embarkation, and debarkation in the northwest. The 3rd, 6th, 27th, 33rd, 40th, 41st, 44th, and 96th Infantry Divisions received training at Fort Lewis prior to deployment overseas.

Following World War II, Fort Lewis remained an active training site. Between 1950 and 1953, Fort Lewis served as a reserve training center for U.S. and Canadian troops bound for Korea. During the 1950s, the 2nd, 4th, and 71st Infantry Divisions trained at Fort Lewis. Between 1966 and 1972, the U.S. Army Personnel Center was located on Fort Lewis and processed troops bound for Southeast Asia.

In 1972, Fort Lewis became the headquarters of the 9th Infantry Division, which emphasized training with wheeled vehicles, both light and heavy. In 1981, I Corps assumed command of the 9th Infantry Division, FORSCOM Units, and reserve components on Fort Lewis. The 9th Infantry Division was inactivated in December 1991.

MROD was activated as an installation on Fort Lewis in April 1942. Until 1963, when it was deactivated and its facilities turned over to the Logistics Center, MROD was responsible for furnishing ordnance supplies and rebuild services to military installations within the states of Idaho, Montana, Oregon, and Washington and to overseas and Alaskan installations through Pacific Coast Army terminals. Items serviced by MROD included artillery, combat and transport vehicles and assemblies, fire control material, guided missile material, and small arms. In addition, during World War II, several hundred German and Italian prisoners of war were housed at MROD.

The Solvent Refined Coal Pilot Plant (SRCPP) was a lessee industrial operation from 1972 to 1981. It was operated through a permit with Fort Lewis under the authority of the Office of Coal Research of the U.S. Department of the Interior (DOI), which later became the Department of Energy (DOE). Operation of the plant was by Pittsburg and Midway Coal Mining Company (P&M), a subsidiary of Gulf Oil Corporation, under contract to DOI/DOE.

A solvent refined coal (SRC) fuel spill occurred in 1979. Consequently, Ecology ordered that storm water from the site be collected and treated prior to discharge. In July 1981, DOE informed P&M that SRCPP operations would be discontinued. P&M officially transferred control of the facility to DOE in December 1981. Decommissioning was completed in March 1983. Due to the SRC spill, long-term groundwater and surface water monitor-

Installation Description

ing began in 1981 and continued until March 1999 when the site was clean closed with EPA approval. DOE turned the facility back over to Fort Lewis in 1985.

The Defense Reutilization and Marketing Office (DRMO), formerly the Defense Property Disposal Office, has been a tenant activity on Fort Lewis since 1972 when the Defense Logistics Agency took over the mission from the individual services. DRMO receives excessed materials and property, including hazardous materials and wastes, and processes them for disposal. Items are received from military installations in Alaska, the Aleutian Islands, Oregon, Washington, North Idaho, and Guam.

MAMC became a tenant activity in 1943. A new, 1.2 million-square-foot, medical center was constructed during the late 1980s and turned over to MAMC in December 1990. MAMC provides medical care to authorized members of the Armed Services.

REGULATORY STATUS

Fort Lewis has one site on the NPL. The Logistics Center was nominated for the NPL in July 1989 due to groundwater contamination beneath the site. It was placed on the NPL in December 1989 with a Hazard Ranking Score (HRS) of 35.48; the Defense Priority Model (DPM) score (scored in 1990 - version 3.1) was 57.0.

Landfill 5 was formerly an NPL site, but was deleted from the list in May 1995. It was nominated for the NPL in October 1984 due to suspected groundwater contamination from the site. It was placed on the NPL in August 1987 with a HRS of 42.78. The DPM score (version FY-92) was 28.6.

The FFA between the EPA, Ecology, and the Army was formalized on 29 January 1990. This agreement established a procedural framework and schedule for developing, implementing, and monitoring appropriate response actions at the Logistics Center, Landfill 5, and 14 other hazardous waste units identified in the agreement.

A Resource Conservation and Recovery Act (RCRA) Part B permit application for a hazardous waste storage unit was submitted to Ecology in January 1993 and is currently under review. Fort Lewis is currently operating under interim status. A RCRA Facility Assessment (RFA) was completed for Fort Lewis in December 1996. An Agreed Order for RI/FS and Cleanup Action Plan was completed on February 23, 2001 with the WA Department of Ecology.

Contamination Assessment

Background: Fort Lewis completed an Installation Assessment report in September 1983. Review of the Installation Assessment report by EPA determined that 30 of the sites identified required further action. This report served as the basis for EPA in conducting the 1986 RCRA Facility Assessment (RFA). The RFA was triggered by a 1983 Part A/B Permit Application for a Hazardous Waste Storage Unit at Fort Lewis. Inspections and review during the RFA indicated that further investigations were required at 14 sites. The Logistics Center was excluded from the RFA since it was part of an on-going CERCLA investigation. In early 1988, the VA Medical Center notified Fort Lewis of its past disposal practices in Park Marsh Landfill. Later, the 14 RFA sites, the Logistics Center and the Park Marsh Landfill comprised the 16 sites in the Fort Lewis Federal Facilities Assessment (FFA). As required by the FFA, a Hazardous Waste Evaluation Report was completed in July 1990 for 14 of the sites in the FFA (excluding the Logistics Center and Landfill 5). The report summarized and analyzed past practices for these sites. Site investigations and remediation continued through 1995 at Fort Lewis, whereby EPA Region 10 realizing that Fort Lewis and the Washington State Department of Ecology (Ecology) Part A/ Part B Permit was in Interim Status and had not been completed during the past 10 years, Ecology then exercised their prerogative to require a 1996 RFA. (Fort Lewis had submitted a draft Part A/ Part B Storage Unit permit to Ecology in 1993, and no response to complete the permit has been received from the state to date.) The 1996 RFA identified 61 Solid Waste Management Units (SWMUs) and 15 Areas of Concern (AOCs) with multiple subcategories. Sites being managed from the former FFA and Landfill 2/Logistics Center continued to be regulated under CERCLA by EPA Region 10. Ecology and Fort Lewis signed an Agreed Order on February 23, 2001 to complete RI/FS and Cleanup Action Plan activities for sites in the 1996 RFA with further corrective action recommended, but not covered by the FFA.

Park Marsh Landfill - FTLE-18 (SWMU 42, CERCLA Site): Based on a 1994 Risk Assessment by Hart Crowser and an independent review of the risk assessment methodology by Pacific Northwest National Laboratory (PNNL) in 2001, the only potential open pathway at the site is exposure of benthic organisms to lead in the sediment pore water. A site investigation is planned to address this potentially open pathway.

Logistics Center - FTLE-33 (SWMU 33, CERCLA Site): The concern at the site is the extent of trichloroethylene (TCE) contamination in the Vashon and Sea Level Aquifers, which emanates from the source area at Landfill 2 (also known as East Gate Disposal Yard). Although actual groundwater receptors have been impacted by the plumes of TCE in these aquifers, future beneficial use of groundwater both on-post and off-post is the primary concern for the site at this time. Other potential pathways of concern include exposures of construction workers and child trespassers to TCE and metals in Landfill 2 soils and vapor intrusion of TCE into Madigan family housing. A number of interim remedial actions are underway at the site.

Illicit PCB Dump Site - FTLE-46 (SWMU 43, CERCLA Site): A remedial action consisting of removal and offsite disposal of 1,869 tons of contaminated soil, installation of an impervious clay cap, fencing, and installation of monitoring wells was completed for the site in the 1980s. Any remaining PCB or trichlorobenzene contamination should not pose an unacceptable risk as long as the cap is maintained. Actions at this site are limited to maintenance of the clay cap.

Industrial Waste Water Treatment Plant (IWWTP) - FTLE-51 (SWMU 55, CERCLA Site): Sediments contaminated with petroleum products, solvents, and metals were discovered during the construction of a new stormwater outfall at this site during 2002. A remedial investigation is planned to delineate the nature and extent of contamination emanating from this site.

Landfill 1 - FTLE-54 (SWMU 32, CERCLA Site): A few volatile organic compounds (VOCs) have been detected in shallow groundwater around the site. Although two on-post water wells are located east of the site, Landfill 1 is not expected to pose unacceptable risks for current beneficial use of on-post groundwater use (due to the relatively low levels of contamination and the fact that the water wells are screened in much deeper aquifers). In addition, Landfill 1 soils are not expected to pose unacceptable risks based on current land use. Long-term monitoring of groundwater continues at the site.

Landfill 4 - FTLE-57 (SWMU 35, CERCLA Site): An air sparging and soil vapor extraction system treated a

Contamination Assessment

localized “hot spot” of TCE and vinyl chloride within Landfill 4 from 1996 to 1999 in accordance with a 1993 ROD. Relatively low concentrations of contamination remain in shallow groundwater around the site. Although Sequelitchew Springs (the main post source of supply) is located just upgradient of Landfill 4, the springs have not been impacted by Landfill 4 leachate based on groundwater monitoring results. Landfill 4 soils are not expected to pose unacceptable risks based on current land use.

Landfill 6 - FTLE-59 (SWMU 37, CERCLA Site): This site is located within the North Uses Area of the Logistics Center and was formerly not considered a significant source of contamination within the Logistics Center site. However, recent historical research has indicated that information and assumptions used to make decisions about Landfill 6 may have been inaccurate. Thus, a preliminary assessment is planned to review historical documents and recent discoveries to determine if a significant release of hazardous substances likely occurred from the site.

Landfill 9 - FTLE-62 (SWMU 40, Agreed Order Site): The Washington Department of Transportation (WDOT) completed a remedial action in a 5-acre portion of the landfill (the portion with a WDOT easement) in 1996. The major components of the WDOT remedial action included covering the soil with gravel and implementing institutional controls. Contaminants of concern at the Fort Lewis portion of the site are similar to the WDOT portion and include metals, TPH, PAHs, organochlorine pesticides, and PCBs. Although a risk assessment has not yet been completed for the site, remedial action decisions for the Fort Lewis portion of the landfill will most likely be driven by potential exposures to terrestrial ecological organisms. Human exposures to landfill soil can be minimized by maintaining institutional controls within this portion of the active training area. No impacts to groundwater from the WDOT or Fort Lewis portions of the landfill were observed during WDOT investigations.

Old Explosive Ordnance Demolition (EOD) Site - FTLE-69 (SWMU 58, CERCLA Site): Potential pathways of concern include exposure of trespassers and site workers to metals and explosives contamination in the soils around the cook-off chamber and demolition pits, respectively. Due to the low concentration of contamination and current land use, risks from soil contamination are expected to be very low. However, a remedial action of limited excavation and off-site disposal is planned to order to obtain response complete status. Groundwater contamination is not a concern at this site.

Miller Hill - FTLE-73 (AOC 4-2.1, Agreed Order Site): The primary contaminant of concern at this complex of former small arms ranges located within the Cantonment Area is lead. Lead concentrations up to 86,000 mg/kg have been detected in site soils. Although a complete risk assessment has not yet been completed for the site, remedial action decisions will likely be driven by potential exposures to terrestrial ecological organisms and child trespassers. An interim remedial action to install a perimeter fence is underway to limit human exposure. Impacts to groundwater have not been detected at the site.

Engineer Bluff - FTLE-74 (AOC 4-1, Agreed Order Site): The primary contaminant of concern at this complex of former small arms ranges located just outside of the Cantonment Area is lead. Lead concentrations up to 54,000 mg/kg have been detected in site soils. Although a complete risk assessment has not yet been completed for the site, remedial action decisions will likely be driven by potential exposures to terrestrial ecological organisms and child trespassers. Impacts to groundwater have not been detected at the site.

Gasoline Pipeline at Pendleton Avenue - FTLE-75 (AOC 9-1, Agreed Order Site): Lead that was detected in a very small portion of the site at approximately 2,000 mg/kg is the only contaminant of concern at the site. Maintaining the existing asphalt cap will likely be the selected remedial action for the site.

Previous Studies

Title	Author	Date
Installation Restoration Program Action Plan for Fort Lewis And Subinstallation Yakima Training Center		
Admin Record Index - Microfiche		
FFA/Other MOA's Folder	Fort Lewis	
Interagency Coordination Folder	Fort Lewis	
Record of Decision	Not Listed	
Illicit PCB Dump Site File Folder	Fort Lewis	
Sampling and Analysis Plan 1/98 Groundwater Monitoring Data Landfill 4 Natural Attenuation	Garry Struthers Associates, INC	
ROD for Landfill 4 and the SRCPP	Fort Lewis	
Interim Remedial Technology Screening Report Landfill 4 and Solvent Refined Coal Pilot Plant RI/FS Fort Lewis, WA	Applied Geotechnology Inc.	
Landfill No. 5 File Folder	Fort Lewis	
In-Situ Thermal Remediation Fort Lewis	USACE - Seattle	
Reductive Anaerobic Biological In Situ Treatability Testing (RABITT)	USGS	
Request for Technical Proposal SRCPP, Soil Remediation	USACE - Seattle	
SRCPP Demo Sampling Results File Folder	Fort Lewis	
SRCPP File Folder	Fort Lewis	
Concept Design Report Fort Lewis Stormwater Improvements Outfalls 002, 003, and 007	Washington Engineering, INC	
Protection of Groundwater Quality from SRC Fluid Spill Progress Report	Thomas W. Grimshaw, Ph.D	5/9/80
Ground Water Impact of SRCPP Fort Lewis, WA	RADIAN Corporation	1/20/81
Stormwater Runoff	Fort Lewis	6/30/81
Leachate plume study, Fort Lewis Landfill	Fort Lewis	2/23/84
Groundwater Well Survey Logistics Center Fort Lewis	K-V Associates	8/1/85
Geohydrology and Spill Migration / Recover Analysis Log Center Hazardous Waste Facility	Shannon & Wilson, INC	2/1/86
Groundwater contamination Investigations at Fort Lewis Logistics Center Fort Lewis, WA	USACE, Seattle	2/1/86
Source Areas, Occurrence and Recommended Remedial Alternatives for TCE in Groundwater Fort Lewis Logistics Center	Shannon & Wilson, INC	5/1/86
Tillicum Municipal Well Investigation Tillicum, WA	Ecology and Environment	10/1/86
Preliminary Assessment and Records Search Final Report	Ecology and Environment	12/1/86
Repository Index Fort Lewis Logistics Center RI/FS Management Plan	Envirosphere / Shannon & Wilson, Inc.	2/1/88
Fort Lewis Logistics Center RI/FS Work Plan	Envirosphere / Shannon & Wilson, Inc.	2/1/88
Contingency Plan: Investigation of Alternatives to the Tillicum Well	Envirosphere Company	4/1/88
PA Statement of Work	Fort Lewis	7/12/88
Preliminary Assessment Status Reports	Fort Lewis	7/19/88
Preliminary Site Information		9/2/88
PA Draft Park Marsh Landfill Fort Lewis, WA	Shapiro and Associates, INC.	10/1/88
Final Remedial Investigation Report, Fort Lewis Logistics Center Remedial Investigation / Feasibility Study	Envirosphere / Shannon & Wilson, Inc.	11/1/88
Final Preliminary Assessment Park Marsh Landfill	Shapiro and Associates, Inc	1/1/89
Preliminary Assessment Correspondence		7/31/89
SI SOW Comments	USACE - Seattle	8/7/89
SI Statement of Work	Fort Lewis	8/16/89
Draft Management Plan Site Investigation Park Marsh Landfill	Shannon & Wilson, INC	11/1/89
Site Identification Forms		12/20/89
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Final Phase I Technical Memorandum, East Gate Disposal Yard Expanded Site Investigation	URS Greiner Woodward Clyde	10/1/99
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Final Third Annual Monitoring Report, Fort Lewis Logistics Center Remedial Action Monitoring (3 volumes)	URS Greiner Woodward Clyde	2/1/00

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Limited Field Investigation Old Explosive Ordnance Disposal Area Fort Lewis, WA Volume 3	The Shannon & Wilson Team	2/1/00
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Final Fourth Annual Monitoring Report, Fort Lewis Logistics Center Remedial Action Monitoring Volume 3	URS	10/1/00
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Revised Addendum Management Plan, Fort Lewis Logistics Center Remedial Action Monitoring	URS	10/1/00
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FINAL Technical Memorandum Direct Push Groundwater Sampling and Analysis Site Investigation Wright Marsh Lake, Former Battery Acid Pit, Former Indoor Firing Range,	USACE - Seattle	1/31/01
Technical Data Management System Needs Assessment Logistics Center FTLE-67	URS	3/1/01
Operation and Maintenance Quarterly Report December 1, 2000 through Feb 28, 2001 Fort Lewis Logistics Center	URS	4/1/01
Groundwater Sampling Report April 2000 Landfill No. 1	URS	6/1/01
Draft Final Site Investigation Report Miller Hill/Engineer Bluff	Hart Crowser	6/25/01
Fort Lewis Logistic Center Remedial Action Monitoring 21st Quarter Monitoring Report LOGRAM	URS	8/1/01
Fort Lewis Logistic Center Remedial Action Monitoring 22nd Quarter Monitoring Report LOGRAM	URS	11/1/01
Final Closure Report Trenching/Drum Removal East Gate Disposal Yard	Garry Struthers Associates, INC	12/1/01
Log Center Drum Removal Photos	Garry Struthers Associates, INC	1/1/02
Final Technical Report for Reductive anaerobic Biological In Situ Treatment Technology (RABBIT) Treatability Testing	Battelle Memorial Institute	2/14/02
Chemical Data Report #4 Landfill 4 Air Sparging/Soil Vapor Extraction Remediation Fort Lewis, WA	Garry Struthers Associates, INC	3/1/02
Operation and Maintenance Quarterly Report December 1, 2002 through February 28, 2002	URS	4/1/02
Fort Lewis Logistics Center Remedial Action Monitoring Twenty Sixth Quarter Monitoring Report	URS	6/1/02
Fort Lewis Logistics Center Remedial Action Monitoring Twenty-Fifth Quarter Monitoring Report	URS	6/1/02
Draft Design Analysis Report In Situ Thermal Remediation East Gate Disposal Yard	URS	6/1/02
Operation and Maintenance Quarterly Report March 1, 2001 through May 31, 2001 Fort Lewis Logistics Center	URS	6/1/02
Landfill 2 East Gate Disposal Yard Thermal Contract	U.S. Army Corps of Engineers	6/10/02
Landfill No. 5 RI/FS Management Plan Addendum B	Woodward Clyde	6/12/02
Management Plan Phase II Remedial Investigation East Gate Disposal Yard and Logistics Center Fort Lewis, WA	URS	7/1/02
Logistics Center Remedial Action Monitoring Fifth Annual Monitoring Report Volume 3 of 3	URS	8/1/02
Logistics Center Remedial Action Monitoring Fifth Annual Monitoring Report Volume 2 of 3	URS	8/1/02
Logistics Center Remedial Action Monitoring Fifth Annual Monitoring Report Volume 1 of 3	URS	8/1/02
Operation and Maintenance Quarterly Report June 1, 2002 through August 31, 2002	URS	9/1/02

Previous Studies

Title	Author	Date
Five Year Review Report Second Five Year Review for Logistics Center Fort Lewis WA	USACE - Seattle	9/1/02
Final Risk Assessment Addendum East Gate Disposal Yard and Logistics Center	URS	10/1/02
Field Investigation Report Phase II Remedial Investigation	URS	10/1/02
Draft Limited Feasibility Study Engineer Bluff and Miller Hill	Hart Crowser	11/1/02
Fort Lewis Logistics Center Remedial Action Monitoring Twenty Seventh Quarter Monitoring Report	URS	12/1/02
Operations and Maintenance Annual Report, December 1, 1999 to November 30, 2000, Fort Lewis Logistics Center, Fort Lewis, Washington	URS	1/1/03
Operation and Maintenance Annual Report Decmeber 1,2001-November 30, 2002 Fort Lewis Log Center	URS	1/3/03
Draft Final Trichloroethene Biodechlorination as a Function of Temperature	Pacific Northwest National Laboratory (PNNL)	2/1/03
Technical Data Management System (TDMS) Operation and Maintenance Manual Volume 1	URS	2/1/03
Sea Level Aquifer Multi-Port Well Technology Letter Report	USACE - Seattle	2/1/03
FINAL Revised Addendum Management Plan Groundwater Monitoring Landfill No. 1 Fort Lewis	URS	2/2/03
FINAL Fort Lewis Logistics Center Remedial Action Monitoring Sixth Annual Monitoring Report DSERTS No. FTLE 33	URS	2/3/03
Cost and Performance Report for Reductive Anaerobic Biological In Situ Treatment Technology Treatability Testing	Battelle Memorial Institute	2/14/03
DRAFT Groundwater Monitoring Plan Landfill No. 1 Fort Lewis	URS	4/1/03
Numerical Groundwater Modeling in Support of Relocating the Pump and Treat Infiltration System East Gate Disposal Yard DRAFT Final	Pacific Northwest National Laboratory (PNNL)	4/1/03
Operation and Maintenance Quarterly Report December 1,2002 through February 28,2003 Log Center	URS	4/1/03
Final SCAPS Investigation at Log Center and East Gate Disposal Yard	U.S. Army Corps of Engineers	5/2/03
DRAFT Fort Lewis Logistics Center Remedial Action Monitoring	URS	7/1/03
Numerical Groundwater Modeling in Support of Relocating the Pump and Treat Recharge System	Pacific Northwest National Laboratory (PNNL)	7/3/03
Draft Veterans Administration Hospital American Lake Division		7/3/03
FINAL Remedial Action Management Plan Work Plan Volume 2 Electrical Resistance Heating Remediation EGDY Ft Lewis, WA	Thermal Remediation Services	8/1/03
FINAL Remedial Action Management Plan Work Plan Volume 3 Electrical Resistance Heating Remediation EGDY Ft Lewis, WA	Thermal Remediation Services	8/1/03
FINAL Remedial Action Management Plan Work Plan Volume 1 Electrical Resistance Heating Remediation EGDY Ft Lewis, WA	Thermal Remediation Services	8/3/03
Fort Lewis Logistics Center Solvent Refined Coal Pilot Project Letter from Robert E. Kievit	EPA Region 10	9/28/03
Fort Lewis Logistics Center Remedial Action Monitoring Thirtieth Quarter Monitoring Report	URS	1/1/04
Operation and Maintenance Quarterly Report March 1, 2003 through May 31, 2003 Fort Lewis Logistics Center	URS	1/1/04
Closure Report for Remedial Action Various IRP Sites at Yakima Training Center	Bay West	1/1/04
Final Site Investigation Report Transformer Storage Area (AOC 13-5)	Hart Crowser	1/12/04
Collaborative Treatability Study Engineer Bluff (AOC 4-1) and Miller Hill (AOC 4-2) Fort Lewis Washington Treatability Study Report	AMEC Earth and Environmental	2/1/04

Previous Studies

Title	Author	Date
Closure Report for Logistical Center EGDY Infiltration System Relocation Fort Lewis WA	Bay West	2/4/04
Final Numerical Flow and Transport Model for the Fort Lewis Logistics Center	Battelle	5/1/04
Final Park Marsh Landfil Confirmatory Investigation Management Plan Ft Lewis	USACE- Seattle	5/4/04

Fort Lewis

**ER,A ELIGIBLE
OPEN
AEDB-R SITES**

FTLE-18 PARK MARSH LANDFILL

SITE DESCRIPTION

Park Marsh Landfill (FTLE-18, SWMU 42) is a former VA Medical Center landfill used for the disposal of municipal and hospital waste between 1948 and 1974. Park Marsh is located east of North Fort Lewis and occupies ~10 acres. The landfill partially encroaches into the marsh area and occupies ~3.2 acres. The site was included in the 1990 Federal Facility Agreement (as a non-NPL CERCLA site).

A preliminary assessment (PA) report of Park Marsh Landfill was completed in January 1989. A SI of the Park Marsh Landfill was completed in November 1990. The SI involved installation of five groundwater monitoring wells, collection and analysis of groundwater samples, and collection and analysis of surface water and sediment samples from within Park Marsh and the adjacent Elliot Marsh. Additional follow-on SI work was completed in December 1992. A screening risk assessment, which focused on potential human health and environmental effects from contaminated sediments, was completed in March 1994. Results of these studies indicated that Park Marsh Landfill is unlikely to pose unacceptable risks to human health or the environment. A draft Decision Document that selected No Further Action as the remedy for the site was prepared in 1995 with EPA Region 10 and Washington State Department of Ecology concurrence. However, the Decision Document also stipulated that a literature review would be conducted in 5 years to confirm that the methodologies used in the risk assessment became widely accepted. A literature review and independent analysis was completed by PNNL in 2001. The PNNL assessment concluded that the risk assessment methodologies used in the risk assessment had become widely accepted; however, PNNL could not support the conclusion that the site does not pose a potential risk to ecological receptors (i.e., benthic organisms) based on lead concentrations in pore water.

PROPOSED PLAN

A confirmatory investigation by USACE is currently underway using FY03 and FY04 funds. This investigation will collect sediment/pore water samples from the following locations: 3 Park Marsh locations adjacent to the landfill, a Park Marsh location away from the landfill (control), and Elliott Marsh (background). Bioassays will be conducted on the samples in order to determine if Park Marsh Landfill likely causes toxicity in benthic organisms. Samples will also be analyzed for lead and other analytes as necessary. It is assumed that the bioassays will show that Park Marsh Landfill does not increase toxicity to benthic organisms. Thus, the only remaining actions are expected to be completion of a Decision Document and decommissioning the existing monitoring wells.

STATUS

RRSE RATING: High

CONTAMINANTS:

Pesticides, Metals

MEDIA OF CONCERN:

Groundwater, Sediment

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI (Risk Assessment - funded)

FUTURE IRP PHASE:

LTM

FTLE-31 CONTAMINATED SOIL AT DRMO YARD

SITE DESCRIPTION

The DRMO Yard (FTLE-31, SWMU 9) is located adjacent to East Gate Disposal Yard (also known as Landfill 2). The site was included in the 1990 Federal Facility Agreement (as a non-NPL CERCLA site) as a result of a PCB spill that occurred on 5 May 1981. Investigation of the DRMO Yard has included soil sampling during the 1988 Logistics Center RI, 1993 and 1995 soil sampling specified by the Logistics Center ROD, and a 2000 Limited SI and screening-level risk assessment.

This site was previously listed as response complete in the IAP since DRMO planned to pave the yard with double-bituminous surface treatment using non-IRP funds. In fact, a stormwater collection and treatment system was partially installed in 2000 in preparation for paving the yard. However, this paving action never occurred due to a change in mission for DRMO.

In addition, select “hot spots” in the yard were removed in 2000.

STATUS

RRSE RATING: High

CONTAMINANTS:

Chlorinated solvents

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI, RA

CURRENT IRP PHASE:

RC under the IRP - 2000

PROPOSED PLAN

Fort Lewis PW plans to complete an evaluation of existing data and reports is underway to determine if the above-mentioned investigation and remedial actions are sufficient to select a remedy for the site. The 2000 screening-level risk assessment concluded that the site does not pose unacceptable risks provided 95% of the yard is paved. Thus, it needs to be determined if the site would pose an unacceptable long-term risk in the absence of comprehensive paving. It is assumed that the “hot spot” removal along with fencing, institutional controls to maintain industrial land use of the site, a limited paving action planned by DRMO, and the ground-water pump-and-treat system(s) associated with the Logistics Center NPL site will be sufficient to close potential exposure pathways associated with soil concentrations observed during 1988, 1993, 1995, and 2000 sampling events. Thus, no additional funding is recommended pending the completion of this review.

This site is listed as RC in AEDB-R; if funding is needed in the future it will be reopened at that time.

SITE DESCRIPTION

FTLE-33 is the Logistics Center NPL site. Widespread groundwater contamination has resulted from the disposal of solvents used from the early 1940s to the mid-1970s at East Gate Disposal Yard (EGDY). The primary contaminant of concern is trichloroethylene (TCE), which is present in both the Vashon and Sea Level Aquifers. Two groundwater pump-and-treat systems have been installed.

In 1983, EPA and Tacoma-Pierce County Health Department initiated studies of potential groundwater contamination in the American Lake Garden Tract (ALGT), an area north of the Logistics Center, in response to public concern. These studies confirmed the presence of TCE and cis 1,2-dichloroethylene (DCE) in several domestic water supply wells in the ALGT (apparently originating from McChord AFB) and also revealed indications of contamination beneath the Logistics Center.

Further investigations confirmed a VOC plume (consisting primarily of TCE with lesser concentrations of DCE) to be present in the Vashon Aquifer underneath the Logistics Center and migrating in the north-westerly direction. In addition, TCE contamination was detected beneath most of Tillicum in the Vashon Aquifer. The primary source of this contamination has been identified as EGDY (also known as Landfill 2: FTLE-67), which is located at the southeast end of the Logistics Center.

A RI was finalized in Nov 88 and a FS was finalized in May 90. The RI/FS indicated that TCE contamination in groundwater is the primary pathway of concern for the site. A Record of Decision (ROD) was signed 25 Sept 90 to address the groundwater contamination. The remedial action (RA) selected in the ROD included installation of two pump-and-treat systems to treat and contain TCE contamination in the Vashon Aquifer. The pump-and-treat systems began operation in 1995. The I-5 pump-and-treat system utilizes 15 extraction wells with a combined capacity of up to 2,000 gpm. The EGDY pump-and-treat system utilizes 6 extraction wells with a combined capacity of up to 800 gpm.

Further investigation confirmed that the complex hydrogeology beneath the Logistics Center site allows contaminated groundwater from the Vashon Aquifer to migrate to the Sea Level Aquifer through a more permeable "geologic window" in the aquitard that separates the Vashon and Sea Level Aquifers. The ROD specified that a pump-and-treat system would need to be installed in the Sea Level Aquifer if that aquifer was found to be contaminated. However, an Explanation of Significant Difference (ESD) from the ROD was signed in Sept 98 to change the remedial plan for the Sea Level Aquifer. The ESD allowed for accelerated cleanup of the source area and completion of additional contaminant transport studies in lieu of installing a pump-and-treat system in the Sea Level Aquifer.

The following actions were completed between 2000 and 2002 to support accelerated source cleanup: EGDY drum removal, preparation of an Engineering Evaluation/Cost Analysis (EE/CA), a Phase II RI to further characterize the source area, and preparation of a Risk Assessment Addendum. In-situ thermal treatment was selected as the preferred source area treatment technology in the EE/CA. A contract to treat 3 non-aqueous phase liquid (NAPL) source areas with electrical resistivity soil heating (ERSH) was awarded to Thermal Remediation Services, Inc. (TRS) in Sept 2002. Installation of the ERSH infrastructure for the 1st of 3 areas (NAPL Area 1) was

STATUS

RRSE RATING: High

CONTAMINANTS: VOCs
(TCE, DCE, VC)

MEDIA OF CONCERN:

Soil, Groundwater, Indoor Air

COMPLETED IRP PHASE:

PA/SI, IRA, RI/FS

CURRENT IRP PHASE:

IRA, RD, RA

FUTURE IRP PHASE:

IRA, RD, RA, RA(O)

SITE DESCRIPTION

completed in December 2003. Heating of soil and groundwater in NAPL Area 1 up to approximately 100°C is currently underway. Other actions underway in FY04 or recently completed include: indoor air monitoring and assessment at the Madigan housing area, applications of the PNNL numerical groundwater model, decommissioning and repair of monitoring wells, installation of a boundary fence around EGDY, installation of new Vashon and Sea Level Aquifer monitoring wells, endgame strategy, Sea Level Aquifer Focused Feasibility Study, and ROD Amendment. A ROD Amendment is intended to ensure that the preferred alternative from the Focused Feasibility Study (i.e., focused P&T in the Sea Level Aquifer) in concert with the existing I-5 P&T system, reconfigured EGDY P&T system, EGDY drum removal, “reasonable effort” in situ thermal treatment, boundary fence around EGDY, Madigan Indoor Air Assessment, and institutional controls constitutes remedy in place (RIP) for the site.

PROPOSED PLAN

Planned actions needed to obtain RIP by 2007 or to realize cost savings include:

- Optimization of I-5 P&T system for long-term cost savings and improved performance
- Modeling work by PNNL in support of I-5 P&T optimization and P&T design
- Completion of “reasonable effort” in situ thermal treatment within the existing footprints of the 3 NAPL areas
- Design and construction of new focused SLA P&T system and re-configured EGDY P&T system

Fort Lewis PW will continue to conduct the following requirements of the ROD, ESD, and/or pending ROD Amendment:

- Monitoring groundwater plumes
- Operating and maintaining the two existing P&T systems and one new P&T system
- Decommissioning of monitoring wells
- Maintenance of institutional controls
- Completion of 5-year reviews
- Continued public notification and involvement
- Maintenance of the administrative record (electronic)

FTLE - 46 ILLICIT PCB DUMP SITE

SITE DESCRIPTION

An illicit dump of transformer fluids (e.g., PCBs, trichlorobenzene) (FTLE-46, SWMU 43) was discovered in the eastern portion of Fort Lewis on 16 November 1983. An emergency response action included removal and offsite disposal of 1,869 tons of contaminated soil, installation of monitoring wells, installation of an impervious clay cap, and installation of a perimeter fence. The site was included in the 1990 Federal Facility Agreement (as a non-NPL CERCLA site).

A limited field investigation was conducted to evaluate the adequacy of the previous RA. Groundwater contamination was not detected. Impacts to human and the environment are not anticipated as long as the cap and fence are maintained.

A new cyclone fence was installed and new grass was seeded in order to maintain the condition of the cap circa 2001.

STATUS

RRSE RATING: Low

CONTAMINANTS:

PCBs, Trichlorobenzene

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RA, IRA (2)

CURRENT IRP PHASE:

RIP (1999) with LTM

FUTURE IRP PHASE:

RIP (1999) with LTM

PROPOSED PLAN

Fort Lewis PW will continue to conduct an annual inspection of the cap and fence, maintain the cap and fence, and mow the grass on the cap.

FTLE-51 OUTFALL #7/ SETTLING BASIN (BLDG. 9586)

SITE DESCRIPTION

The Industrial Wastewater Treatment Plant (FLTE-51, SWMU 55) is located in the north uses area of the Logistics Center and was included in the 1990 Federal Facility Agreement (as a non-NPL CERCLA site). The plant treated both wastewater and stormwater and then discharged effluent into a no-outlet evaporation/percolation lagoon from 1954 until the early 1990s. In the early 1990s, the wastewater and stormwater collection/treatment systems were separated – with wastewater transmitted to the Solo Point Wastewater Treatment Plant following pre-treatment by the Industrial Wastewater Treatment Plant while stormwater was discharged at the original Outfall 7 location southwest of the Industrial Wastewater Treatment Plant following treatment with an oil/water separator.

In FY02, a more robust stormwater treatment system was installed and the associated stormwater outfall (Outfall 7) was moved from the original location southwest of the Industrial Wastewater Treatment Plant to a new location southeast of the Industrial Wastewater Treatment Plant. As part of this MCA project, approximately 80 cubic yards of contaminated sediments were removed from the original location of Outfall 7. Following this removal action, Fort Lewis PW conducted a limited investigation of surficial sediments between the original Outfall 7 location and the first lagoon berm. This investigation discovered that surficial sediments along the entire first section of the no-outlet lagoon are contaminated with petroleum products, solvents, and metals.

No investigations of the site were conducted between 1990 and 2002 since: 1) the site is within the larger Logistics Center NPL site, 2) a P&T system is located near the site, 3) the 1988 Logistics Center RI confirmed that the entire north uses area was not a significant contributor to the Logistics Center TCE plume, 4) the original Outfall 7 location was active until 2002, and 5) the nature of contamination near the original location of Outfall 7 was not known until 2002 since 1986 analytical results suggested there had been minimal impacts to lagoon sediments.

PROPOSED PLAN

Even though this site is within the larger Logistics Center NPL site, additional action is necessary in order to obtain no further action status for this particular site. Fort Lewis PW plans to conduct a more detailed site investigation/screening-level risk assessment to characterize the horizontal and vertical extent of contamination and determine the risk posed by the site in FY06. It is assumed that sediment removal will be needed following completion of a limited feasibility study. An alternative approach that will be considered would be to conduct a dynamic removal action to remove the sediments closest to the original Outfall 7 location and then supplement that removal action with institutional controls for industrial land use.

STATUS

RRSE RATING: Low

CONTAMINANTS:

Metals, TPH, VOCs

MEDIA OF CONCERN:

Sediment

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

None

FUTURE IRP PHASE:

RI/FS, RD, RA

SITE DESCRIPTION

The approximately 15-acre Landfill 1 (FTLE-54, SWMU 32) was reportedly used for disposal of solid waste between 1946 and the early 1970s. The site is included in the 1990 Federal Facility Agreement (as a non-NPL CERCLA site). The site is located in the southern portion of the Cantonment Area, approximately 1/2 mile southwest of Gray Army Airfield. The site is a concern due to the presence of a former solid waste landfill and the elevated concentrations of volatile organic compounds (VOCs) in shallow groundwater around the site. Investigation activities at the site include installation of four monitoring wells (MWs) in 1984, a Limited Site Investigation (LSI) by PNNL in 1988 (which included installation of 4 MWs), another LSI by Woodward-Clyde in 1994, installation of seven MWs in 1995, and various groundwater monitoring (GWM) events between 1997 and 2003. Additional site background information is included in the March 2004 Landfill 1 Groundwater Monitoring Plan.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

VOCs

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RIP (1999) with LTM

FUTURE IRP PHASE:

RIP (1999) with LTM

PROPOSED PLAN

As described in the March 2004 draft Decision Document, the selected remedy for the site is a combination of institutional controls and long-term groundwater monitoring. Institutional controls implemented by Fort Lewis PW include controls on land use planning within the landfill boundary and groundwater use planning within 1000 feet of the landfill boundary. Fort Lewis PW will conduct annual groundwater monitoring events between 2004 and 2017 (which represents 30-years of post-closure monitoring) or until all VOC concentrations are below MCLs for 3 consecutive years. During years in which the Logistics Center 5-year review is not occurring, samples will only be collected from MWs with VOC exceedances and MWs with VOC concentrations slightly below a MCL. All 14 existing MWs will be sampled during 5-year review years.

SITE DESCRIPTION

Landfill 4 (FTLE-57, SWMU 35) is a former ~52 acre municipal solid waste landfill located north of Sequalitchew Lake. Disposal operations occurred between ~1951 and 1970.

Investigation activities at the site include a 1988 SI, 1993 RI, 1993 Risk Assessment, and 1993 Feasibility Study. These investigations concluded that TCE and vinyl chloride in groundwater posed unacceptable risks. These investigations also concluded that the source of groundwater contamination does not appear to be the landfill itself, but rather several discreet “hot spots” adjacent to the landfill where other activities, such as vehicle maintenance, likely occurred.

The site (along with SRCPP) was added as an operable unit to the Logistics Center NPL site and a ROD was signed on 15 October 1993. The selected remedy specified in the ROD was 1) air sparging and soil vapor extraction, 2) institutional controls, and 3) groundwater monitoring. During 1997-1999, an air sparging and soil vapor extraction system was operated in accordance with the ROD.

STATUS

RRSE RATING: High

CONTAMINANTS:

VOCs (TCE, VC)

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI/FS, RD, RA, RA(O)

CURRENT IRP PHASE:

RIP (1999) with LTM

FUTURE IRP PHASE:

RIP (1999) with LTM

PROPOSED PLAN

Ongoing activities include maintenance of institutional controls and long-term groundwater monitoring as required by the ROD. Fort Lewis PW has implemented institutional controls for the site that will be memorialized in the pending Logistics Center ROD Amendment. Institutional controls implemented by Fort Lewis PW include a control on land use planning within the landfill boundary, a control to limit training activities within the landfill boundary, and a control on groundwater use planning within 1,000 feet of the site boundary. Fort Lewis PW will continue to conduct annual groundwater monitoring events at the site. During 2004 and during years in which the Logistics Center 5-year review is occurring, groundwater samples will be collected from all monitoring wells deemed relevant. During years in which the Logistics Center 5-year review is not occurring, samples will only be collected from MWs with VOC exceedances, MWs with VOC concentrations slightly below a MCL, and MWs that are located between the landfill and Fort Lewis drinking water sources.

SITE DESCRIPTION

The approximately 0.5-acre Landfill 6 site (FTLE-59, SWMU 37) is located within the north uses area of the Logistics Center NPL site and was included in the 1990 Federal Facility Agreement (as a non-NPL CERCLA site). Landfill 6 was used for drying and disposal of sludges excavated from the Industrial Wastewater Treatment Plant (FTLE-51, SWMU 55) no-outlet evaporation/percolation lagoon. According to the 1986 RFA, dried sludges were disposed of in a 10' x 6' x 4-6' deep pit.

According to the 1986 RFA and 1996 RFA, the site was apparently used from 1954 until 1981. However, this period of use is a conservative estimate based on the date the Industrial Wastewater Treatment Plant was installed (1954) and the date that sludges were first taken to Landfill 5 for disposal. Based on the aerial photographs reviewed during the limited preliminary assessment (described below) and the lack of documented site use beyond the reference in the 1990 Hazardous Waste Evaluation Report that personnel interviewed were aware of historical disposal sometime prior to the mid 1970s, it is more likely that site use was much more limited.

No investigations of the site were conducted between 1990 and 2004 since: 1) the site is within the larger Logistics Center NPL site, 2) a P&T system is located near the site, 3) the 1988 Logistics Center RI confirmed that the entire north uses area was not a significant contributor to the Logistics Center TCE plume, and 4) the nature of contamination in sludges from the Industrial Wastewater Treatment Plant was not known until 2002 since 1986 analytical results suggested lagoon sediments were minimally impacted.

Fort Lewis PW completed a limited preliminary assessment in 2004 since little is known about the actual nature and extent of the landfill. Historical documents and aerial photographs were reviewed. The presumed location of the landfill was identified and land disturbance from heavy equipment operation in the reported landfill location was observed in a 1960 aerial photograph. However, subsequent aerial photographs show revegetation of the site within approximately a year and suggest that either the site was not used after 1960 or that any use of the site was minimal.

PROPOSED PLAN

Even though this site is within the larger Logistics Center NPL site, additional action is necessary in order to obtain no further action status for this particular site. Thus, Fort Lewis PW plans to conduct a limited SI in FY05. The limited SI will consist of excavating and sampling a select number of test pits within the presumed landfill boundary. Based on the historical description of the site and aerial photographs reviewed during the limited preliminary assessment, it is expected that no further action beyond institutional controls will be necessary following the limited SI.

STATUS

RRSE RATING: Low

CONTAMINANTS:

Metals, VOCs, SVOCs, POL, etc.

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

RC

SITE DESCRIPTION

Landfill 9 (FTLE-62, SWMU 32) is an approximately 15-acre former landfill that was used from circa 1932 to the late 1980s. Although the landfill was ostensibly used for disposal of vegetation, municipal and medical waste was discovered in the northwest portion of the landfill during construction of the South DuPont Interchange in the mid-1990s. The Washington Department of Transportation (WDOT) investigated and remediated the approximately 5-acre northwest portion of the site, which was located within the interchange easement.

Fort Lewis PW conducted soil sampling in 2002 to characterize the southeastern portion of the landfill. In general, contaminant concentrations in the southeast portion of the landfill were either similar to or significantly lower than contaminant concentrations detected in the northwest portion of the landfill. However, some contaminant concentrations were detected at concentrations above MTCA cleanup standards for human health and terrestrial ecological organisms.

STATUS

RRSE RATING: Low

CONTAMINANTS:

Metals, POL

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI, RI

CURRENT IRP PHASE:

None

FUTURE IRP PHASE:

FS, RD, RA, LTM

PROPOSED PLAN

This site is a Fort Lewis Agreed Order site being regulated by the Washington Department of Ecology to satisfy a RCRA Corrective Action requirement. No action is planned for this site until all the Fort Lewis Agreed Order sites proceed to the Risk Assessment and FS phases. These phases are currently scheduled to begin in FY06. Potential remedial options for the FS include no further action following establishment of site-specific cleanup levels, implementation of institutional controls for contaminants above cleanup levels but below remediation levels, installing additional site cover, and installing a site cap. It is assumed that installing additional site cover (as was done for the WDOT portion of the landfill) will be the selected remedy for the site.

FTLE-69 OLD EXPLOSIVE ORDNANCE DEMOLITION SITE

SITE DESCRIPTION

The approximately 5-acre Old EOD Site (FTLE-69, SWMU 58) was reported used for EOD operations from the 1940s to 1987. Among other activities, open burning of small arms ammunition in a Cook-off Chamber and open detonation of discarded munitions in demolition pits occurred at this site. The site is located approximately 1 mile south of Interstate 5 Exit 118 and 1.5 miles southwest of Interstate 5 Exit 119 in an active Army training area known as Fort Lewis Training Area 4.

Investigation activities at the site include a 1993 PA, 1995 SI, 2000 Limited Field Investigation and screening-level risk assessment. The site is a concern due to the detection of elevated concentrations of hexachlorobenzene, 2,4,6-trinitrotoluene (2,4,6-TNT), lead, copper, and zinc in certain on-site soil samples as well as the potential presence of unexploded ordnance (UXO) in on-site soil. Additional site background information is included in the March 2004 draft Decision Document.

STATUS

RRSE RATING: Low

CONTAMINANTS:

Metals, Explosives

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI, RI/FS

CURRENT IRP PHASE:

RD/RA

FUTURE IRP PHASE:

LTM

PROPOSED PLAN

As described in the March 2004 draft Decision Document, the selected remedy for the site is a combination of actions including UXO surface clearance, removal of objects of human interest remaining from EOD operations, a non-time critical removal action, institutional controls, a groundwater and surface water monitoring event, decommissioning of monitoring wells, and planting of native tree/shrub species. These actions will significantly reduce the already low risk posed to human health and the environment by the site.

The UXO surface clearance and removal of objects of human interest (i.e., remnant vehicles and Cook-off Chamber) have already been completed. Institutional controls already implemented by Fort Lewis PW include a control on land use planning within the site boundary, a control to limit training activities within the site boundary, and a control on groundwater use planning within 1,000 feet of the site boundary. The monitoring event is planned for summer 2004 using existing FY04 funds. The non-time critical removal action (i.e., removal of contaminated soil from around the Cook-off Chamber and from within Demolition Pits 1 –3) is planned for FY05. Well decommissioning and native tree/shrub planting will occur after the removal action.

SITE DESCRIPTION

The former Miller Hill ranges site (FTLE-73, AOC 4-2.1) is composed of four firing ranges (pistol ranges 62 and 67, sub-caliber tank range 54, and machine gun range 42). The site is approximately ~0.5 miles long and is located on the south side of Miller Hill. The ranges were used from circa 1917 until the 1960s. A housing area is located to the west of the site.

Investigations have detected elevated concentrations of lead (up to 85,000 ppm) in surficial soil. Groundwater has not been impacted.

This site is a Fort Lewis Agreed Order site being regulated by the Washington Department of Ecology.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

Lead

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

RI/FS, RD, RA

PROPOSED PLAN

As described in a draft April 2004 Decision Document, installation of a perimeter fence is planned for FY04 as an interim remedial action in order to limit human exposure to contaminated surficial soil.

Fort Lewis PW plans to conduct additional RI activities in FY05 to delineate the extent of lead in surficial soil throughout the site since previous investigations did not fully delineate the extent of contamination. This investigation is primarily intended to increase the accuracy of FS cost estimates rather than to assist with risk evaluations.

Although a draft risk assessment and a draft limited FS were completed in FY02 and a treatability study/follow-on FS is planned for completion in late FY04 (funded by USACE ERDC), all of these documents will need to be reviewed and amended as necessary in FY06 and FY07 during the Fort Lewis Agreed Order risk assessment and FS phases along with all the other Fort Lewis Agreed Order sites. In addition, FY06 funding is earmarked for an alternative site-specific terrestrial ecological evaluation since the terrestrial ecological pathway was not addressed adequately in the FY02 draft risk assessment.

It is expected that a soil removal action will be the selected remedy for the site following the FS phase.

FTLE-74 ENGINEER BLUFF

SITE DESCRIPTION

The former Evergreen Bluff ranges site (FTLE-74, AOC 4-1) is composed of a number of former pistol and rifle ranges. The site is approximately ~0.5 miles long and is located outside the Cantonment fence in an active training area. The ranges were used from the 1930s to the 1960s.

Investigations have detected elevated concentrations of lead (up to 65,000 ppm) in the soil. Groundwater has not been impacted.

This site is a Fort Lewis Agreed Order site being regulated by the Washington Department of Ecology.

A Cantonment Area fence, installed for security in late 2002, limits access to this site for recreationalists and trespassers.

STATUS

RRSE RATING: Low

CONTAMINANTS:

Lead

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI, RI

CURRENT IRP PHASE:

FS (funded)

FUTURE IRP PHASE:

RD, RA, LTM

PROPOSED PLAN

Although a draft risk assessment and a draft limited FS were completed in FY02 and a treatability study/follow-on FS is planned for completion in late FY04 (funded by USACE ERDC), all of these documents will need to be reviewed and amended as necessary in FY06 and FY07 during the Fort Lewis Agreed Order risk assessment and FS phases along with all the other Fort Lewis Agreed Order sites. In addition, FY06 funding is earmarked for an alternative site-specific terrestrial ecological evaluation since the terrestrial ecological pathway was not addressed adequately in the FY02 draft risk assessment.

It is assumed that a partial soil cover may be the selected remedy for the site following the FS phase.

FTLE-75 UNDERGROUND GASOLINE PIPELINE

SITE DESCRIPTION

The underground gasoline pipeline at Pendleton Avenue site (FTLE-75) was discovered during 2000 construction activities in the vicinity of Building 2012. The 4-inch pipeline was apparently used during the 1940s. Based on historical drawings and excavation, at least 2,000 feet of pipe exist. The site is paved. The gasoline remaining in the pipeline (approximately 50 gallons) was drained from the pipeline in July 2000.

Soil sampling was conducted in FY02. The only exceedance of MTCA Method A soil cleanup levels was the detection of lead in a single sample.

This site is a Fort Lewis Agreed Order site being regulated by the Washington Department of Ecology.

STATUS

RRSE RATING: Low

CONTAMINANTS:

Lead

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI, RI

CURRENT IRP PHASE:

None

FUTURE IRP PHASE:

FS

PROPOSED PLAN

Although this site is unlikely to pose unacceptable exposure risks, the site cannot be considered response complete yet (due to the lead exceedance). No action is planned for this site until all the Fort Lewis Agreed Order sites proceed to the risk assessment and FS phases. These phases are scheduled to begin in FY06. No further action beyond possibly institutional controls is expected for the site.

Fort Lewis

**ER,A ELIGIBLE
RESPONSE COMPLETE
AEDB-R SITES**

FTLE-16 BATTERY ACID PIT

SITE DESCRIPTION

FTLE-16 (SWMU 16) is located within the Logistics Center and is part of the Logistics Center NPL site. FTLE-16 was used from 1971 to 1976. Exposure to residual lead in the Battery Acid Pit was evaluated and found to be more than a factor of five below the EPA guideline. The site has been paved.

STATUS

RRSE RATING: Low

CONTAMINANTS:

Chlorinated Solvents, Acids

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI/FS, RA

CURRENT IRP PHASE:

RC - 2001

FTLE-17 OLD FIREFIGHTING TRAINING PIT

SITE DESCRIPTION

FTLE-17 (SWMU 46) is located near Taxiway No. 2 at Gray Army Air Field. FTLE-17 was used between 1962 and 1982 for air-crash rescue operation training. Flammable waste materials were pumped into the pit and ignited as a fuel source. The pit was approximately 100 feet in diameter. Field investigations found no contaminants present in groundwater beneath the site. Total petroleum hydrocarbon (TPH) results from a recent confirmatory soil sampling were below the Model Toxics Control Act (MTCA) interim cleanup level and no VOCs were found.

No further action was approved by EPA.

STATUS

RRSE RATING: Low

CONTAMINANTS:

POL

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC - 2002

FTLE-26 OLD RECYCLING SEPARATION BUILDING 1214

SITE DESCRIPTION

FTLE-26 is the Old Recycling Separation Building 1214. It was in operation from 1979 and 1982. The building was demolished prior to 2000.

No further action is planned under the IRP.

STATUS

RRSE RATING: NE

CONTAMINANTS:

Pesticides

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1996

FTLE-28 PESTICIDE RINSE AREA - BUILDING 2054

SITE DESCRIPTION

FTLE-28 (SWMU 18) is a small (34 feet by 34 feet), unbermed, concrete pad that is part of a concrete apron adjacent to the pesticide storage area on the south side of Building 2054. No contaminants have been detected in groundwater at the site. Chlordane exceeded the industrial screening criteria for soils applicable at the time of sampling. A screening risk assessment showed that the chlordane will never reach the groundwater due to a combination of adsorption and degradation. A comparison with more recent standards showed that none of the pesticides exceeded the criteria for industrial soils.

No further action has been approved by EPA.

STATUS

RRSE RATING: Low

CONTAMINANTS:

Pesticides

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC - 2001

FTLE-30 BUILDING 9507 (TRANSFORMER STORAGE)

SITE DESCRIPTION

Building 9507 (SWMU 13) is located within the Logistics Center ~700 feet from the Log Center Gate on North A Street. This wood framed building served as barracks during the 1940s and 50s. Between 1970 and the early 1990s, the building was used by DRMO to store electrical transformers. Testing of the transformers revealed transformer oil containing 50 ppm of PCB. At some time before or during transformer storage, an eight inch high concrete containment berm was installed around the perimeter of the building interior. Also, the berm and concrete floor were coated with a thin, flexible material to prevent spills from penetrating the concrete. Over time, this material degraded in places. By 1994, all transformers were removed and the building has been vacant since.

Soil and concrete floor samples (in 1998 using OMA funds) detected 1-2ppm PCB in the concrete.

Building was demolished in 2001. OMA funds were used to remove the building. The concrete was disposed of as a non-hazardous waste.

No further action is required.

STATUS

RRSE RATING: Low

CONTAMINANTS:

PCBs

MEDIA OF CONCERN:

Soil (concrete)

COMPLETED IRP PHASE:

PA/SI, RI/FS, RD, RA

CURRENT IRP PHASE:

RC - 2001

FTLE-32 SOLVENT REFINED COAL PILOT PLANT

SITE DESCRIPTION

FTLE-32 (SWMU 56), located south of Sequalitchew Lake, was a DOE facility that operated from 1974 until 1981. It operated as a production/research facility for converting coal into liquid fuel products. It occupied approximately 25 acres. A spill of liquid fuel occurred in 1979. Subsequent investigations indicated other potential sources of soil and groundwater contamination. Large amounts of soil were excavated. This building was remediated in the 1990s.

No further action has been approved by EPA.

STATUS

RRSE RATING: High

CONTAMINANTS:

PAH, TPH

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI, RD, RA, LTM

CURRENT IRP PHASE:

RC - 1999

FTLE-34 BUILDING 9556 (HAZ MAT STORAGE)

SITE DESCRIPTION

FTLE-34 (SWMU 2) was used as hazardous waste storage facilities until 1984. Field investigations indicate that heavy metal contamination was present at levels above residential standards, but not above industrial standards. The building and foundation were removed in 1996.

Clean Closure was approved by WA Department of Ecology in March 1997.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

Arsenic, Cadmium

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC - 1997

FTLE-35 BUILDING 9557 (HAZ MAT STORAGE)

SITE DESCRIPTION

FTLE-35 (SWMU 3) was used as a hazardous waste storage facility until 1984. Field investigations indicate that heavy metal contamination was present at levels above residential standards, but not above industrial standards. The building and foundation were removed in 1996.

Clean Closure was approved by WA Department of Ecology in March 1997.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

Arsenic, Cadmium

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC - 1997

FTLE-36 BUILDING 9558 (HAZ MAT STORAGE)

SITE DESCRIPTION

FTLE-36 (SWMU 4) was used as hazardous waste storage facilities until 1984. Field investigations indicate that heavy metal (arsenic) contamination was present at levels above residential standards, but not above industrial standards. These sites are located within the Logistic Center (FTLE-33, NPL site), industrial use is the only planned use for this area. The building and foundation were removed in 1996.

Clean Closure was approved by WA Department of Ecology in March 1997.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

Arsenic, Cadimum

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC - 1997

FTLE-53 OLD VEHICLE WASHRACK(S)

SITE DESCRIPTION

FTLE-53 (SWMU 52) is comprised of the old vehicle washrack(s) located at numerous motorpools at Main Fort Lewis and North Fort Lewis. The facilities were operational until approximately 1978. These washracks discharged into the stormwater drains/outfalls.

Though considered RC, sampling has not occurred at the north Ft Lewis outfalls from this site.

No further action is planned under the IRP.

STATUS

RRSE RATING: NE

CONTAMINANTS:

POL

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-56 LANDFILL 3

SITE DESCRIPTION

FTLE-56 (SWMU 34) was used from 1946-1951. No evidence of municipal waste remains at the site. Due to the characteristics of the waste believed to have been placed in this landfill (inert, non-hazardous), no releases are expected. Based on the results of the RFA, no releases of hazardous constituents are expected from these landfills.

A perimeter excavation is planned using non-IRP funds.

No further action is planned under the IRP.

STATUS

RRSE RATING: NE

CONTAMINANTS:

None

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-58 LANDFILL 5

SITE DESCRIPTION

FTLE-58 (SWMU 36), located northwest of Sequelitchew Lake, is a former NPL site. A portion of this site comprises the current Fort Lewis landfill. The former NPL area was operational between 1967 and July 1990, and contains municipal waste. Low-level groundwater contamination was detected during the RI.

Between 1977 and 1984, 42 wells were installed in the vicinity of Landfill 5. None of the wells met WAC minimum standards for monitoring wells at the time the RI was conducted. Therefore, these wells were not used for sampling during the RI, and the available water-quality data was not used for site characterization purposes, except to provide a general outline of the size of the plume and to aid in selecting chemical parameters to use in identifying the plume.

In 1980, 11 monitoring wells were installed in the vicinity of the landfill to test for leachate-contaminated groundwater. Water-quality data from these wells indicated elevated levels of iron, manganese, and specific conductance. During August 1983, a study began to further define the configuration, orientation, and vertical and horizontal extent of the leachate plume. As part of this study, 20 wells were installed. In 1984, seven shallow wells and four deep wells were installed. These wells provided data which indicated a leachate plume to a distance of at least 3,000 feet to the west-northwest of the landfill.

Due to the evidence of groundwater contamination, a RI began in May 1988 and was finalized in October 1991. The Baseline Risk Assessment was completed in November 1991. Investigations of surface water, air, sediments, and groundwater in the study area resulted in the determination that the landfill does not pose a threat to human health or the environment; therefore, an FS was not conducted. A ROD outlining the decision for no further cleanup action was signed on 24 July 1992.

Landfill 5 was deleted from the NPL in May 1995 after two years of groundwater monitoring indicated that contaminant levels were following expected trends as modeled during the RI. A plan to further delineate the contamination source was submitted to Tacoma and Pierce County Health Department and Ecology.

STATUS

RRSE RATING: High

CONTAMINANTS:

Heavy Metals, Chlorinated Solvents

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI, RI, LTM

CURRENT IRP PHASE:

RC - 1992

FTLE-60 LANDFILL 7 (CONSTRUCTION RUBBLE)

SITE DESCRIPTION

FTLE-60 (SWMU 38) was used from 1965 to the mid-1980's. Due to the characteristics of the waste believed to have been placed in this landfill (inert, non-hazardous), no releases are expected. Based on the results of the RFA, no releases of hazardous constituents are expected from these landfills.

No further action is planned under the IRP.

STATUS

RRSE RATING:NE

CONTAMINANTS:

None

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-61 LANDFILL 8 (CONSTRUCTION RUBBLE)

SITE DESCRIPTION

FTLE-61 (SWMU 39) is located in the Central Impact Area and was used from 1981 to 1990. Due to the characteristics of the waste believed to have been placed in these landfills (inert, non-hazardous), no releases are expected. Based on the results of the RFA, no releases of hazardous constituents are expected from these landfills.

No further action is planned under the IRP.

STATUS

RRSE RATING: NE

CONTAMINANTS:

None

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-63 LANDFILL 10 (CONSTRUCTION DISPOSAL)

SITE DESCRIPTION

FTLE-63 (SWMU 41) was used until 1991. Due to the characteristics of the waste believed to have been placed in these landfills (inert, non-hazardous), no releases are expected. Based on the results of the RFA, no releases of hazardous constituents are expected from these landfills. The land that holds this landfill was transferred to Weyerhaeuser in the mid-1990's.

No further action is planned under the IRP.

STATUS

RRSE RATING: NE

CONTAMINANTS:

None

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-66 (2) USTs (NEVADA & 41ST DIVISION)

SITE DESCRIPTION

FTLE-66 (SWMU 44) consist of the USTs Building 6038, located at Nevada and 41st.

In July 1992, a release to the environment from USTs was discovered. In 1997, contaminated soil and four mobility fuel tanks (two 15,000 gallon, two 12,000 gallon for MOGAS and diesel) were removed. Monitoring wells were emplaced in 1997, and will be monitored until 2002.

Since the site contamination has been removed, no further action is planned under the IRP.

STATUS

RRSE RATING: NE

CONTAMINANTS:

MOGAS, Diesel

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA, RA, LTM

CURRENT IRP PHASE:

RC - 1997

FTLE- 67

LANDFILL 2 (EAST GATE DISPOSAL YARD)

SITE DESCRIPTION

FTLE-67 (SWMU 33) is part of the Logistics Center (FTLE-33) NPL site. FTLE-67 was a 35-acre landfill where waste (drummed and non-drummed) TCE was disposed of in trenches from 1946 to the 1970s. This site is the primary source of trichloroethylene (TCE) contamination in the upper and lower aquifers for the Logistics Center NPL site.

A pump and treat system (800 gpm) consisting of 6 wells was installed in 95. This focuses on the removal of high concentration dissolved phase contaminant.

A removal action, excavation to remove drummed and containerized hazardous waste, was performed from Sept 2000 to Sept 2001. It was successful in removing ~581,800 pounds of RCRA hazardous waste including ~46,000 pounds of TCE from Landfill 2. Although this removal action eliminated a considerable volume of waste, source material remains as non-aqueous phase liquid (NAPL) in the vadose and saturated zones.

To make tracking of contamination and funding all future actions at this site will be addressed and funded under FTLE-33, Logistic Center. This site will be listed as RC in AEDB-R because it will not be receiving any funding.

STATUS

RRSE RATING: High

CONTAMINANTS:

Chlorinated Solvents (TCE), TPH

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA, RA

CURRENT IRP PHASE:

RC - 2002

FTLE-70

UNDERGROUND GAS SUPPLY PIPING

SITE DESCRIPTION

FTLE-70 (AOC9-1) was comprised of an underground, gas supply pipeline that remotely fueled the USTs for the motor pools for railcars and railheads of North Fort Lewis. The piping was installed in the 1940s, abandoned in the 1960s or 70s, and removed in the early 1990s. At the time of removals, some locations still had fuel in the lines. Contaminated soil was removed as needed and confirmatory samples were taken.

No further action is planned under the IRP.

STATUS

RRSE RATING: NE

CONTAMINANTS:

POL

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA, RA

CURRENT IRP PHASE:

RC - 1992

Fort Lewis

**ER, A NON-ELIGIBLE
RESPONSE COMPLETE
AEDB-R SITES**

FTLE-01 BUILDING 9580 (MAINTENANCE)

SITE DESCRIPTION

Building 9580 was built in 1942, located along South A Street in the Logistics Center. It houses Department of Logistics (DOL). It is a General Support level maintenance facility for vehicles and equipment. In addition, it also had a paint booth.

Since this building is still active, it is not eligible for IRP funds.

STATUS

RRSE RATING: NE

CONTAMINANTS:

Asbestos, Solvents, POL

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-02 HANGAR 3039 (MAINTENANCE)

SITE DESCRIPTION

FTLE-02 is located on the main post. Aircraft maintenance activities take place at the hangar.

Since this building is still active, it is not eligible for IRP funds.

STATUS

RRSE RATING: NE

CONTAMINANTS:

Acid, Paint, Solvents

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-03 PHOTO SECT (BUILDING 5208)

SITE DESCRIPTION

FTLE-03 (SWMU 31) is located on the main post. Military Photo Section has been moved to Building 1401 (former Main Post Laundry). MWR Hobby Photo Lab is located at Building 5208. The Hobby Photo Shop Building was constructed in 1942 and demolished in the 1990s. A new building currently stands near the site.

This site was mislabeled as Bldg 5209 in the past.

This site is not eligible for IRP funds.

STATUS

RRSE RATING: NE

CONTAMINANTS:

None

MEDIA OF CONCERN:

None

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1997

FTLE-10 STORMWATER OUTFALLS

SITE DESCRIPTION

FTLE-10 (SWMU 57), stormwater outfalls, are estimated to have been installed in the early 1940s. Field investigations indicate that contaminants present are related to normal urban runoff rather than releases from hazardous waste sites.

No further action has been approved by EPA.

This site is actively regulated under a NPDES permit.

STATUS

RRSE RATING: High

CONTAMINANTS:

POL

MEDIA OF CONCERN:

Sediment

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC - 1999

FTLE-11 MAMC HEALTH PHYSICS OFFICE (BLDG 9909C)

SITE DESCRIPTION

This site began use in the 1960s as a Radiation Lab. It is currently used as a Radiation Therapy Clinic for brachytherapy (isotope source implantation). Isotopes for radiation treatment are/were stored and used at this location. (Short-termed isotope spills are allowed to decay to background level.)

Since this building is still active, it is not eligible for IRP funds.

STATUS

RRSE RATING: NE

CONTAMINANTS:

None

MEDIA OF CONCERN:

None

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-12 MAMC INCINERATOR (BUILDING 3152)

SITE DESCRIPTION

Bldg 3152 (SWMU 24) is a single stack incinerator that burned less than 12 tons of waste per day and was rated to burn 800 lbs of waste per hour. No emissions control devices have ever existed on this facility. This medical waste incinerator that was used from 1987 to 1997 for medical, classified (documents) waste, municipal solid waste, and PD680 solvents. It was used intermittently from 1997-2000 for classified waste. In 2001, use of the incinerator was terminated.

Due to the incinerators recent use this site is not eligible for IRP funds.

Incinerator is shutdown and is undergoing RI (see Agreed Order sites).

STATUS

RRSE RATING: NE

CONTAMINANTS:

Ash, Heavy Metals

MEDIA OF CONCERN:

Soil, Air

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1997

FTLE-13
HOBBY PHOTO LAB (BUILDING 5308)

SITE DESCRIPTION

FTLE-13 and FTLE-03 are the same site.
Since this building is still active, it is not eligible for IRP funds.

STATUS

RRSE RATING: NE
CONTAMINANTS:
None
MEDIA OF CONCERN:
None
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - 1983

FTLE-15
BUILDING 9500

SITE DESCRIPTION

Building 9500 was built in 1956. It was originally occupied by the Directorate of Installation Management offices and used by other administrative activities. It was also a motor pool for GSA vehicles.
Since this building is still active, it is not eligible for IRP funds.

STATUS

RRSE RATING: NE
CONTAMINANTS:
POL, Solvents
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - 1983

FTLE-19 SMALL ARMS FIRING RANGES

SITE DESCRIPTION

The Small Arms Firing Ranges (also known as Central Impact Area/ Artillery Impact Area AOC 2) is also used for multiple small arms ranges. The Marne Forest is the site of inactive 1930s/1940s small arms ranges. Marne Forest is currently used as a training area.

These ranges are considered active. No further action required.

STATUS

RRSE RATING: NE

CONTAMINANTS:

Heavy Metals, UXO

MEDIA OF CONCERN:

Soil, Groundwater, Surface
Water

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-20 ARTILLERY IMPACT RANGE

SITE DESCRIPTION

This site is active, and is located at the Artillery Impact Area at Fort Lewis. Munitions contamination monitoring (groundwater) is ongoing at this site. No further action is planned under the IRP.

STATUS

RRSE RATING: NE

CONTAMINANTS:

Heavy Metals, RDX, TNT, UXO

MEDIA OF CONCERN:

Soil, Groundwater, Surface
Water

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-21 MORTAR RANGES

SITE DESCRIPTION

The Artillery Impact Area (AOC 2) is used by multiple artillery ranges to include small arms, rocket, grenade, and mortar.

This site is part of FTLE-20.

These ranges are considered active. No further action required.

STATUS

RRSE RATING: NE

CONTAMINANTS:

Heavily Metals, RDX, TNT, UXO

MEDIA OF CONCERN:

Soil, Groundwater, Surface
Water

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-29 BUILDING 9570 (WEAPONS REPAIR/ INDOOR RANGE)

SITE DESCRIPTION

AOC 3: Indoor Firing Range. This enclosed range is a two weapon test firing range. The range is sealed off from entry by personnel. It is monitored by the CIH at Fort Lewis.

AOC 6: Small Arms Weapons Repair Area. This site is active and monitored by the CIH, Fort Lewis, WA. No further action is planned under the IRP.

STATUS

RRSE RATING: NE

CONTAMINANTS:

POL, Solvents, VOCs, Heavy
Metals

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1997

FTLE-38 MOBILITY FUEL TANKS (BUILDING 4176)

SITE DESCRIPTION

There were 3 USTs removed at this site (Old Stone Gas Station) in 1998. No releases are recorded. Closure reports state no further action.

Since this building is still active, it is not eligible for IRP funds.

STATUS

RRSE RATING: NE

CONTAMINANTS:

POL

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-40 MIXED WASTE STORAGE (BUILDING S9749)

SITE DESCRIPTION

Mixed waste (formaldehyde and radioactive isotopes) were stored at this site in the form of 20 drummed pigs and 200 bunnies, and other hazardous waste products. These wastes were stored in a 1940s era 56 feet diameter - 15 foot high cylindrical steel building originally used for humidity controlled storage. The wastes, stored at this location from 1980-1994, were removed and disposed of and the building site was demolished and all debris removed. This site (SWMU 61) was Clean Closed in December 23, 1998 per Washington Regulation 173-303 WAC.

No action required – Site Clean Closed.

STATUS

RRSE RATING: NE

CONTAMINANTS:

Formaldehyde, Radioactive
Isotopes

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA, RA

CURRENT IRP PHASE:

RC - 1998

FTLE-41 WASTEWATER TREATMENT PLANT (BLDG 7500)

SITE DESCRIPTION

This site (SWMU 54) is covered by a NPDES permit. It was designed for a capacity of 706 mgd average flow, it is operated at approximately 4 mgd. Domestic wastewater and stormwater from Fort Lewis, McChord AFB, Camp Murray, Dupont, and Veterans Administration Hospital are treated and discharged to Puget Sound at Solo Point. Methane is burned and sludge is placed in beds where it dries.

Since this building is still active, it is not eligible for IRP funds.

STATUS

RRSE RATING: NE

CONTAMINANTS:

Industrial Wastewater

MEDIA OF CONCERN:

Surface Water

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-44 BUILDING 9513 (RAD STORAGE)

SITE DESCRIPTION

This building was constructed in 1942. Storage of standard radioactive material is managed here by the Installation RPO.

Since this building is still active, it is not eligible for IRP funds.

STATUS

RRSE RATING: NE

CONTAMINANTS:

Radiation

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-47 BUILDING 3034 UST

SITE DESCRIPTION

There were 4 underground storage tanks at Bldg 3034 (AOC 9), containing JP8. These tanks were installed in 1960 and removed in 1998. Soil samples were above state contamination levels: 3,000-6,700 ppm. Site will be re-excavated under the Agreed Order.

Since this building was recently active, it is not eligible for IRP funds.

STATUS

RRSE RATING: NE

CONTAMINANTS:

POL

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-49 BUILDING 9589 (BATTERY SHOP)

SITE DESCRIPTION

This site was built in 1948, and used for battery acid storage (SWMU 14) for many years, it was subsequently demolished in 1990. A new state of the art Building 9589 was completed in 2000 and is in use.

No further action is required.

STATUS

RRSE RATING: NE

CONTAMINANTS:

Acid, Industrial Liquid Waste

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

FTLE-71 VEHICLE WASHRACKS

SITE DESCRIPTION

There are four consolidated washrack facilities and one former washrack site. An active washrack was built in the early 1990s on the site of the former washrack. Military vehicles use the washracks to remove dirt, grime and oil products. The used wash water is first discharged to the oil/water separators, secondly to holding ponds, and then recirculated to the washracks. The oil from the oil/water separator is collected in drums or tanks. Washracks/Oil water separators will be upgraded in FY 2001/2002 with interim measures.

Since these washracks are active, they are not eligible for IRP funds.

Ecology is requiring an RI/FS under the Agreed Order.

STATUS

RRSE RATING: NE

CONTAMINANTS:

POL

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA, RI

CURRENT IRP PHASE:

RC - 2001

FTLE-72 EMERGENCY FUEL USTs

SITE DESCRIPTION

This site (AOC 8) consists of:

- Building 9040 two each 48,000 gallon tanks (emergency power for Hospital)
- Building 2003 one each 300 gallon tanks (emergency power for 1115 Signal)
- Building 7500 one each 1000 gallon tanks (emergency power for Waste-water Treatment Plant)
- Building 9576 one each 300 gallon tank (emergency power for Heat Plant 3LC)
- Building 9190 Dual Use (emergency power/heat for 1st Special Forces Group HQ)
- Building 2025 Dual Use (emergency power/ heat for ICORPs HQ)

These tanks are active.

STATUS

RRSE RATING: NE

CONTAMINANTS:

POL

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC - 1983

VA HOSPITAL AREA

SITE DESCRIPTION

This site is not in AEDB-R.

The Department of Veterans Affairs' Veterans Hospital located at American Lake, WA is located on Fort Lewis property. In 1923, the Assistant Secretary of War granted the Veterans Bureau permission , revocable at will, to occupy and use the site to erect and maintain a hospital. In addition to Park Marsh Landfill, the Veterans Hospital in February 2002, revealed the locations of two additional landfills, a former sewage treatment unit and various other RCRA sites.

The VA will contract for a preliminary investigation of these sites. At this time, this site is regulated by EPA Region 10. No funding is allocated by Fort Lewis for this site.

STATUS

RRSE RATING: NE

CONTAMINANTS:

Unknown

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED PHASE:

PA

CURRENT PHASE:

RC

PAST MILESTONES

IRP START DATE: Jan 80 (Fort Lewis FFA signed 29 Jan 90)

The IRP began at Fort Lewis in January 1980 with a site investigation of the spill that occurred at the SRCPP. Removal of contaminated soil began at this site in March 1980.

IRP Phase	Completion Date
PA: Installation Assessment Report	Sep 83
Illicit PCB Dump Site (FTLE-46)	Nov 84
Park Marsh Landfill (FTLE-18)	Jan 89
Old Explosive Ordnance Demolition Site (FTLE-69)	Sep 93
Underground Gas Supply Piping (FTLE-70)	Feb 88
SI: Logistics Center (FTLE-16, FTLE-31, FTLE-33, FTLE-59, FTLE-67)	Sep 83
Landfill 5 (FTLE-58)	Jan 88
Landfill 4 (FTLE-57)	Aug 90
SRCPP (FTLE-32)	Oct 92
Haz Mat Storage (FTLE-34, FTLE-35, FTLE-36)	Sep 95
Old EOD Site (FTLE-69)	Feb 95
Old EOD Site (FTLE-69)	Jul 00
RI: Logistics Center, upper aquifer groundwater (FTLE-33, FTLE-67)	Nov 88
Landfill 5 (FTLE-58)	Oct 91
Landfill 4 (FTLE-57)	Feb 93
SRCPP (FTLE-32)	Feb 93
PCB Spill at DRMO Yard (FTLE-31)	2000
Miller Hill Firing Range (FTLE-73)	Mar 01
Engineer Bluff Firing Range (FTLE-74)	Mar 01
FS: Logistics Center, upper aquifer groundwater (FTLE-33, FTLE-67)	May 90
Landfill 4 (FTLE-57)	May 93
SRCPP (FTLE-32)	Oct 93
ESD for Logistic Center (FTLE-33)	Sep 98
ROD: Logistics Center, upper aquifer groundwater (FTLE-33, FTLE-67)	Sep 90
Landfill 5 (FTLE-58)	Jul 92
Landfill 4 (FTLE-57)	Oct 93
SRCPP (FTLE-32)	Oct 93
RD: Logistics Center, upper aquifer groundwater (FTLE-33, FTLE-67)	Jul 93
SRCPP (FTLE-32)	Jun 95
Landfill 4 (FTLE-57)	May 96
Landfill 2 (FTLE-67)	Dec 00
REM: PCB Spill at DRMO Yard, contaminated soil, OMA funded (FTLE-31)	May 82
UST Removal (FTLE-66)	Sep 90
Underground Gas Supply Piping (FTLE-70)	Nov 92
IRA: Logistics Center (FTLE-33), drinking water well closure	Aug 91

PAST MILESTONES

Logistics Center (FTLE-33), contaminated soil at Low Humidity Storage Facility	Oct 98
Landfill 2 (FTLE-67) Source Removal)drums)	Aug 01
RA(C): Illicit PCB Dump Site, OMA funded (FTLE-46)	Oct 84
SRCPP (FTLE-32), contaminated soil excavation and asphalt capping of exposed facility	Jan 83
SRCPP LTDD	97/98
RA(C): Illicit PCB Dump Site, OMA funded (FTLE-46)	Oct 84
SRCPP, contaminated soil excavation and asphalt capping of exposed areas of the site, Dept. of Energy	
funded (FTLE-32)	Jan 83
Landfill 4 (FTLE-57), air sparging/soil vapor extraction	Nov 96
Battery Acid Pit (FTLE-16)	Sep 99
Illicit PCB Dump Site (FTLE-46)	Sep 99

NO FURTHER ACTION SITES

The following sites currently require no further action under the ER,A program:

FTLE-01	BUILDING 9580 (MAINTENANCE)
FTLE-02	HANGAR 3039 (MAINTENANCE)
FTLE-03	PHOTO SECT (BLDG. 5209)
FTLE-10	STORM WATER OUTFALLS
FTLE-11	RADIOLOGICAL LABS (OLD MAMC)
FTLE-12	MAMC INCINERATOR (BLDG. 3152)
FTLE-13	HOBBY PHOTO LAB (BLDG. 5308)
FTLE-15	BUILDING 9500
FTLE-16	BATTERY ACID PIT
FTLE-17	OLD FIRE FIGHTING TRAINING PIT
FTLE-19	SMALL ARMS RANGE
FTLE-20	ARTILLERY RANGE
FTLE-21	MORTAR RANGE
FTLE-26	OLD RECYCLING SEPARATION BUILDING #1214
FTLE-28	PESTICIDE RINSE AREA
FTLE-29	BUILDING 9570 (REPAIR SHOPS)
FTLE-30	PCB TRANSFORMER BUILDING
FTLE-32	SOLVENT REFINED COAL PILOT PLANT
FTLE-34	BUILDING 9556 (HAZ MAT STORAGE)
FTLE-35	BUILDING 9557 (HAZ MAT STORAGE)
FTLE-36	BUILDING 9558 (HAZ MAT STORAGE)
FTLE-38	MOGAS STORAGE TANK (BLDG. 4176)
FTLE-40	RAD STORAGE SITE (BLDG. S9749)
FTLE-41	SEWAGE TREATMENT PLANT
FTLE-44	BUILDING 9513 (RAD STORAGE)
FTLE-47	BUILDING 3034 UST
FTLE-49	BUILDING 9589 (BATTERY SHOP)
FTLE-53	OLD VEHICLE WASHRACK (S)
FTLE-56	LANDFILL 3
FTLE-58	LANDFILL 5
FTLE-60	LANDFILL 7 (CONSTRUCTION RUBBLE)
FTLE-61	LANDFILL 8 (CONSTRUCTION RUBBLE)
FTLE-63	LANDFILL 10 (VEGETATION DISPOSAL)
FTLE-66	(2) UST (NEVADA & 41ST DIVISION)
FTLE-67	LANDFILL 2
FTLE-70	UNDERGROUND GAS SUPPLY PIPING
FTLE-71	WASHRACKS USTS
FTLE-72	EMERGENCY FUEL USTS

Fort Lewis IRP Schedule

(Based on current funding constraints)

		FY05	FY06	FY07	FY08	FY09	FY10+
FTLE-18	LTM						
FTLE-31	RI/FS						
FTLE-33 Log Center	IRA						
	RD/RA						
	RA(O)						
FTLE-46	LTM						
FTLE-51	RI/FS						
	RD						
	RA						
FTLE-54	LTM						
FTLE-57	LTM						
FTLE-59	RI/FS						
FTLE-62	RI/FS						
	RD						
	RA						
	LTM						
FTLE-69	RD/RA						
	LTM						
FTLE-73	RI/FS						
	RD						
	RA						
FTLE-74	RI/FS						
	RD						
	RA						
	LTM						
FTLE-75	RI/FS						

Remediation Activities

COMPLETED REM/IRA/RA:

- FTLE-16, Battery Acid Pit – RA (capping)
- FTLE-31, PCB Spill at DRMO Yard (Logistics Center) – REM of PCB contaminated soil. Installation OMA funded – cost unknown.
- FTLE-32, Solvent Refined Coal Pilot Plant – RA included excavation of contaminated soils and asphalt capping. Funded by the DOE – cost unknown. LTM completed in March 1999.
- FTLE-33, Logistics Center – IRA to close a drinking water well potentially contaminating the lower aquifer.
- FTLE-46, Illicit PCB Dump Site – RA included soil removal, capping of the spill site, and installation of monitoring wells. Work accomplished in 1983 and 1984 with installation OMA funds – cost unknown.
- FTLE-66, (2) UST (Nevada & 41st Division) – REM of underground storage tanks and contaminated soil.
- FTLE-70, Underground Gas Supply Piping – REM of underground piping and contaminated soil.
- FTLE-30, Transformer Storage Building - REM of building and concrete pad.
- FTLE-57, Landfill 4 - Air sparging complete in 1999.
- FTLE-36, Old Explosive Ordnance Demo Site - Removal of lead-contaminated soil, furnaces and tagets.

CURRENT REM/IRA/RA:

- FTLE-33 Thermal treatment
- FTLE-69 Contaminated soil removal

FUTURE REM/IRA/RA:

- IRA at FTLE-33
- RA at FTLE-33, 51, 62, 69, 73, 74

Community Involvement

RESTORATION ADVISORY BOARD (RAB) STATUS

An Open House was held at Fort Lewis 25 July 2002 to discuss the clean up at Landfill #2. Ads announcing the meeting and how to get more information on this project were published in the Tacoma News Tribune and the Fort Lewis Northwest Guardian. A Fort Lewis Community Newsletter describing the clean up was written and placed at the local repositories (Tillicum and Grandstaff Libraries). The Newsletter also included a Community Information Form to identify the level of community interest. The objectives of the form were to identify public interest in future meetings, mailings, and a section for questions and/or comments. Turnout for the Open House was minimal, and we have received very little feedback on the newsletter. The Community Information Forms that have been sent back reveal that there is interest in future open houses, and updated cleanup information.

Fort Lewis is completing development of a DERP website in 2003 which will include an information repository and a site for community involvement.